MUSLIN, K.E.; PEREVERZEV, M.P.; NOVITSKIY, V.V.; GRITSENKO, V.G.

Improving rock pressure control in mining steeply dipping seams under conditions of the Yanovka hydraulic mine. Ugol' Ukr. 6 no.6:13-15 Je '62. (MIRA 15:7)

1. Ukrainskiy nauchno-issledovatel'skiy institut gidrodobychi uglya.

(Donets Basin--Hydraulic mining)
(Rock pressure)

MUSLIN, Ye.

Coupling flow and storm. Izobr.i rats. no.4:23 '64. (MIRA 17:4)

MUSLIN, Ye.S.

Cut-off tool with mechanical holder. Stan.i instr. 26 no.11:38 N '55. (Cutting tools) (MLRA 9:2)

ZUBKOV, Boris Vasil'yevich; MUSLIN, Yevgeniy Salimovich; FEDCHENKO, V., red.

[About the elements, "cido" and the reality of fantastic visions] O stikhiiakh, "tsido" i real'nosti fantastiki. Moskva, Molodaia gvardiia, 1965. 151 p. (MIRA 18:12)

S/262/62/000/015/005/011
I007/1207

AUTHORS: Potemkina, A. M., Shvartsman, P. I. and Muslin, E. S.

TITLE: On the failure of turbine discs when operating at a "reverse" temperature gradient

PERIODICAL: Referativnyy zhurnal, otdel'nyy vypusk. 42. Silovyye ustanovki, no. 15, 1962, 30, abstract 42.15.184 (In collection Teplovyye napryazheniya v elementakh turbomashin, Kiev, AS UkrSSR, no. 1, 1961, 150–155)

TEXT: The analysis of turbine disc operation at "reverse" temperature gradients, shows that the stressed state of the turbine disc periphery under such conditions is liable to cause disc failure. Reliable operation of turbine discs in mobile turbine plants requires a more detailed study of the effect of temperature gradients on the carrying capacity of discs under cycling working conditions and stress concentrations.

[Abstracter's note: Complete translation.]

Card 1/1

MUSLIN, Yevgeniy Salimovich; IVANOV, S.M., red.; NAZAROVA, A.S., tekhn. red.

[Freight transported by pipes] Gruzy idut po trubam. Moskva, Izd-vo "Znanie," 1963. 31 p. (Novoe v zhizni, nauke, tekhnike. IV Seriia: Tekhnika, no.14) (MIRA 16:8)
(Pipelines)

ZUBKOV, Boris Vasil'yevich; MUSLIN, Yevgeniy Salimovich; VISHNYAKOVA, Ye., red.; KUZNETSOVA, A., tekhn. red.

[Two hundred advices to rural mechanics] 200 sovetov sel'skim mekhanizatoram. Moskva, Mosk. rabochii, 1963. 87 p. (MIRA 16:10)
(Agricultural machinery--Maintenance and repair)

ZUBKOV, Boris Vasil'yevich; MEDVEDEV, Yuliy Emmanuilovich; MUSLIN, Yevgeniy Salimovich; CHERNIKOVA, M.S., red.; KLAPTSOVA, T.F., tekhn. red.

[A hundred inventions] Sto izobretenii. Moskva, Sovetskaia Rossiia, 1963. 295 p. (MIRA 17:1)

ZUBKOV, Boris Vasil'yevich; MUSLIN, Yevgeniy Salimovich; MUSATOV, V., red.

[One hundred homemade collective farm implements] Sto kolkhoznykh samodelok. Moskva, Mosk. rabochii, 1964. 94 p. (MIRA 18:9)

27489
S/062/61/000/009/004/014
B117/B101

S 3630

AUTHORS: Rizpolozhenskiy, N. I., and Muslinkin, A. A.

TITLE: Reaction of epichlorohydrin with chlorides of phosphoric acids

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 9, 1961, 1600-1606

TEXT: The reactions of epichlorohydrin with phosphorus trichloride, phenyl-dichloro phosphine, ethyl-dichloro phosphine and methyl-dichloro phosphine oxide were studied. In the presence of a few drops of titanium tetrachloride, epichlorohydrin reacts with phosphorus trichloride in a molar ratio 1 : 1 under considerable spontaneous heating. Distillation of the reaction products yielded 3 fractions: the β,β'-dichloro-isopropyl phosphinous acid dichloride, b.p. 49-51°C (1 mm Hg), yield 28%; the bis-(β,β'-dichloro-isopropyl) phosphinous acid chloride, b.p. 122-124°C (1 mm Hg), yield 26%, and the bis-(β,β'-dichloro-isopropyl ester) of β,γ-dichloropropyl phosphinic acid, b.p. 170-172°C (0.02 mm Hg), yield 47.5%. The two first-mentioned fractions fume in air, the first more

Card 1/4

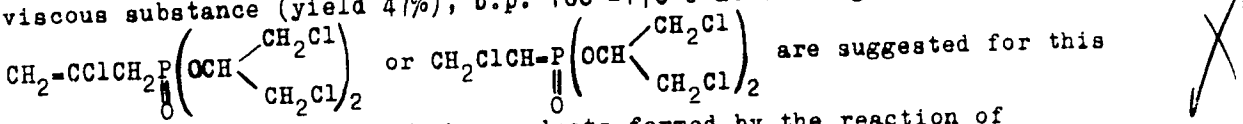
Reaction of epichlorohydrin ...

intensely than the second. The reaction of epichlorohydrin with phosphorus trichloride in a molar ratio 3 : 1, leading to a thick, yellow liquid is also exothermic. During distillation under vacuum the tris-(β,β'-dichloro-isopropyl) phosphite formed in the reaction undergoes isomerization according to a mechanism suggested by M. I. Kabachnik and P. A. Rossiyskaya (Ref. 3: Izv. AN SSSR. Otd. khim. n. 1946, 403), yielding the bis-(β,β'-dichloro-isopropyl) ester of β,γ-dichloro-propyl phosphinic acid. Isomerization occurs at a bath temperature of ~160°C and is accompanied by intense bubbling of the substance. The reaction product is a transparent, viscous liquid. Epichlorohydrin reacts with phenyl-dichloro phosphine and ethyl-dichloro phosphine in the presence of a few drops of titanium tetrachloride with evolution of heat, an effect particularly marked in the second case. Rearrangement of the reaction product leads to the β,β'-dichloro-isopropyl ester of β,γ-dichloro-propyl-phenyl phosphinic acid, b.p. 179-181°C (0.02 mm Hg), yield 88%; and the β,β'-dichloro-isopropyl ester of β,γ-dichloro-propyl-ethyl phosphinic acid, b.p. 149-151°C (0.05 mm Hg), yield 54%, respectively. On heating to 75°-80°C, epichlorohydrin reacts with methyl-dichloro phosphine oxide. The reaction product, the bis-(β,β'-dichloro-isopropyl ester) of methyl

27489
S/062/61/000/009/004/014
B117/B101

Reaction of epichlorohydrin ...

phosphinic acid, is a colorless liquid, b.p. 127-129°C (1 mm Hg), yield 75%. By treating the bis-(β,β'-dichloro-isopropyl ester) of β,γ-dichloro-propyl phosphinic acid at 130°-140°C with phosphorus pentachloride in a molar ratio 1 : 2, the β,β'-dichloro-isoproyl ester of β,γ-dichloro-propyl phosphinic acid chloride, b.p. 188-190°C (8 mm Hg), yield 43%, was obtained. Dehydrochlorination of the bis-(β,β'-dichloro-isopropyl ester) of β,γ-dichloropropyl phosphinic acid with triethyl amine in benzene by the method of Ye. L. Gefter (Ref. 5: Zh. obshch. khimii 28, 2500 (1958)) yielded a viscous substance (yield 47%), b.p. 168°-170°C at 1 mm Hg. The formulas



are suggested for this compound. The structure of the products formed by the reaction of epichlorohydrin with phosphoric acid chlorides was confirmed by synthesis according to a different reaction path. The reaction of ethyl-dichloro phosphine with glycerol α,γ-dichlorohydrin yielded the bis-(β,β'-dichloro-isopropyl ester) of ethyl phosphinic acid. After vacuum distillation and isomerization, the β,β'-dichloro-isopropyl ester of β,γ-dichloro-propyl-

Card 3/4

Reaction of epichlorohydrin ...

ethyl phosphinic acid was isolated. The identity of the products obtained in these two ways was verified by comparison of their physical and chemical constants. The infrared spectra of the compounds were also in complete agreement. The studies performed indicate the compounds obtained to have iso structure. The authors thank R. Shagidullin for taking several infrared spectra. The Arbuzov isomerization is mentioned. There are 2 tables and 6 references: 5 Soviet and 1 non-Soviet.

ASSOCIATION: Institut organicheskoy khimii Akademii nauk SSSR, Kazan' (Institute of Organic Chemistry of the Academy of Academy of Sciences USSR, Kazan')

SUBMITTED: February 20, 1961

Card 4/4

BALAKISHIYEV, Kyamil' Abdul-Salam, zasl. deyatel' nauki, prof.;
MUSLUMOV, M., red.

[Anatomical nomenclature in Latin, Azerbaijani and Russian. Compiled on the basis of the Paris International Anatomical Nomenclature] Anatomicheskaia nomenklatura na latinskom, azerbaidzhanskom i russkom iazykakh. Sostavlena na osnove Mezhdunarodnoi Parizhskoi anatomicheskoi nomenklatury. Baku, Azerbaidzhanskoe gos.izd-vo uchebno-pedagog. lit-ry, 1964. 270 p. (MIRA 17:5)

MUSNICKI, Czeslaw

Methods of studying the frost resistance of crops applied in the Institute of Plant Breeding of the German Academy of Agricultural Sciences in Bernburg, Saale. Postepy nauk roln 10 no.3:133-152 My-Je '63

MUSNIKOV, L.M.

Conference on the results of using "Safety engineering regulations for operating electrical systems of industrial enterprises." Prom. energ. 18 no.12:49-50 D '63.
(MIRA 17:1)

MUSNIKOVA, D.M.; ORKINA, Z.G.

Granulated coke made by contact coking as a raw material for the manufacture of electrodes and for the production of power gas. Trudy GrozNII no.4:113-120 '59. (MIRA 12:9)
(Petroleum coke)

AMERIK, B.K.; GALEYEVA, K.S.; USPENSKIY, G.I.; RYAZANTSEV, Yu.P.; MUSNIKOVA, D.M.; ANTOSHKINA, R.A.

Contact coking of a cracking residue in a mixture with powdered coke on a pilot plant. Trudy GrozNII no. 15:68-74 '63. (MIRA 17:5)

MUSNITSKIY, Ye. M. (Khar'kov)

Creatively resolve the problems in the communist education of students. Fel'd. i akush. 27 no.5:55-59 My '62.
(MIRA 15:7)

(MORAL EDUCATION)

3-58-6-12/34

AUTHOR: Muslyumov, I.S., Candidate of Historical Sciences, Secretary of the Party Committee

TITLE: Communists - the Organizers of Educational Work in a Vuz (Kommunisty - organizatory vospitatel'noy raboty v vuze)

PERIODICAL: Vestnik Vysshey Shkoly, 1958, Nr 6, p 53-55 (USSR)

ABSTRACT: The author describes the party organization's activity at the Azerbaydzhan Pedagogical Institute of Russian Language and Literature imeni Akhundov, in particular on matters of ideological education of the academic youth. Among other occurrences the author mentions two evenings on which the students met veterans of the revolutionary movement, the old communists A. Tagi-zade, S. Gadakchan, N. Abramova, D. Babayev, and M. Dadashev. The institute's communists are also paying much attention to the proper organization of political education among the instructors. The Studencheskoye nauchnoye obshchestvo (Students' Scientific Society) has lately arranged several literary disputes at which a novel by the renowned Azerbaydzhan writer A. Abul'gasan was discussed. The annual meetings of the institute's students with those of the Yerevan' and Tbilisi Pedagogical Institutes have already become a tradition.

Card 1/2

Communists - the Organizers of Educational Work in a Vuz 3-58-6-12/34

ASSOCIATION: Partiynyy komitet Azerbaydzhanskogo pedagogicheskogo instituta russkogo yazyka i literatury imeni M.F. Akhundova (The Party Committee of the Azerbaydzhan Pedagogical Institute of Russian Language and Literature imeni M. F. Akhundov)

Card 2/2

MUSMAN, V.M., inzhener.

Methods for erecting rotary kilns and crushing mills. Stroi.prom. 35 no.3:25-28 Mr '57. (MLRA 10:4)
(Kilns, Rotary) (Milling machinery)

MUSNITSKIY, Ye.M. (Khar'kov)

For further improvement in the work of correspondence sections of medical schools. Fel'd. i akush. 22 no.9:57-59 S'57 (MIRA 11:10)
(MEDICINE—STUDY AND TEACHING)

MUSNITSKIY, Ye.M.

Main points in the methodical work of correspondence departments of medical schools. Fel'd. i akush. 24 no.12:48-51 D '59.
(MIRA 13:2)

(MEDICINE—STUDY AND TEACHING)

MUSNITSKIY, Ye.M. (Khar'kov)

Formation of the materialistic viewpoint among medical students.
Fel'd i akush. 25 no. 10:49-52 O '60. (MIRA 13:10)
(MEDICINE--STUDY AND TEACHING) (DIALECTICAL MATERIALISM)

L 31188-66 EWT(1)/T JK

ACC NR: AP6022597 SOURCE CODE: UR/0016/66/000/003/0143/0145

AUTHOR: Mukhordov, F. G.; Gladkov, V. I.; Musokhranov, P. D.

ORG: Kemerov Medical Institut (Kemerovskiy meditsinskiy institut); City Infectious Disease Hospital (Gorodskaya infektsionnaya bol'nitsa)

TITLE: Treatment of anthrax

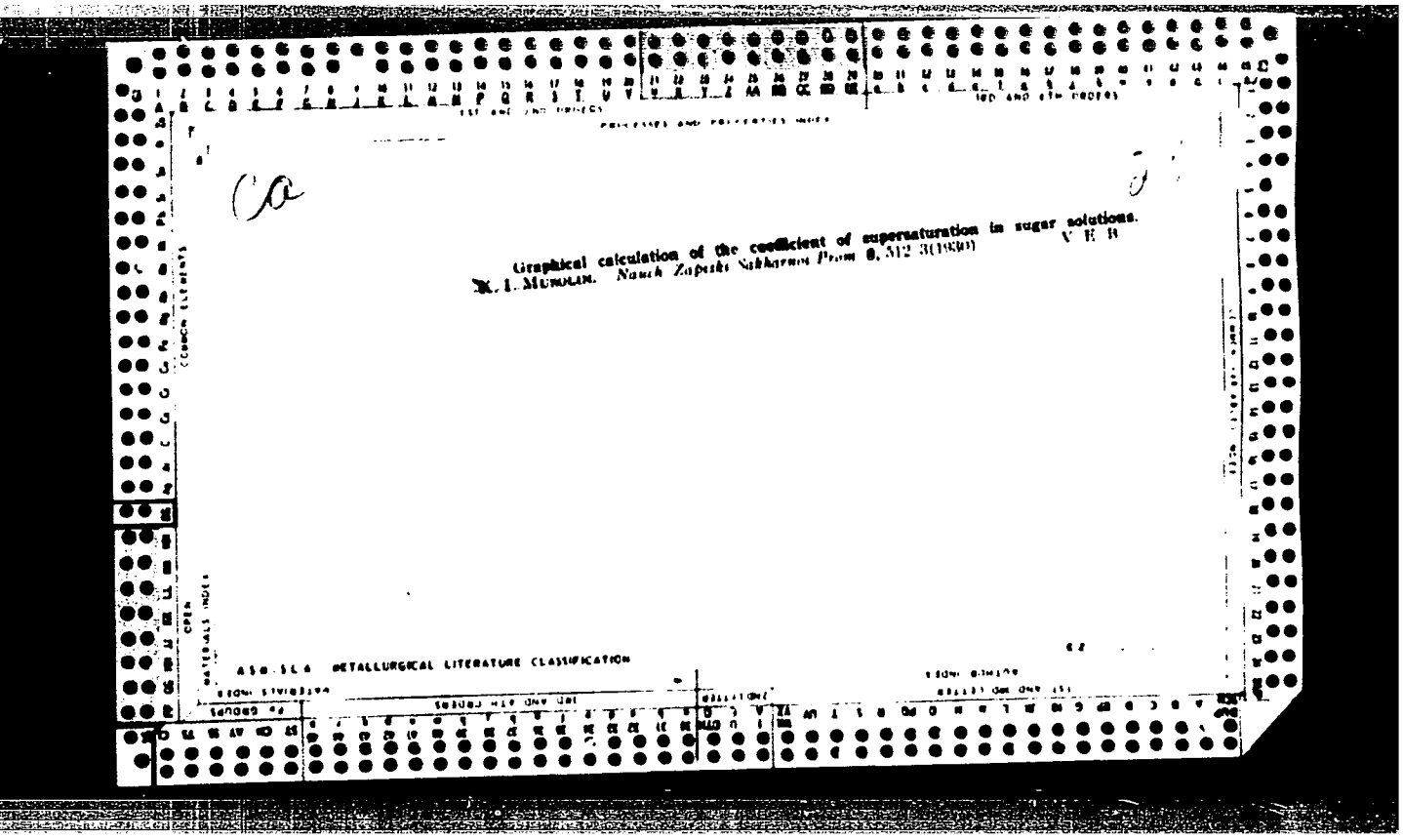
SOURCE: Zhurnal mikrobiologii, epidemiologii i immunobiologii, no. 3, 1966, 143-145

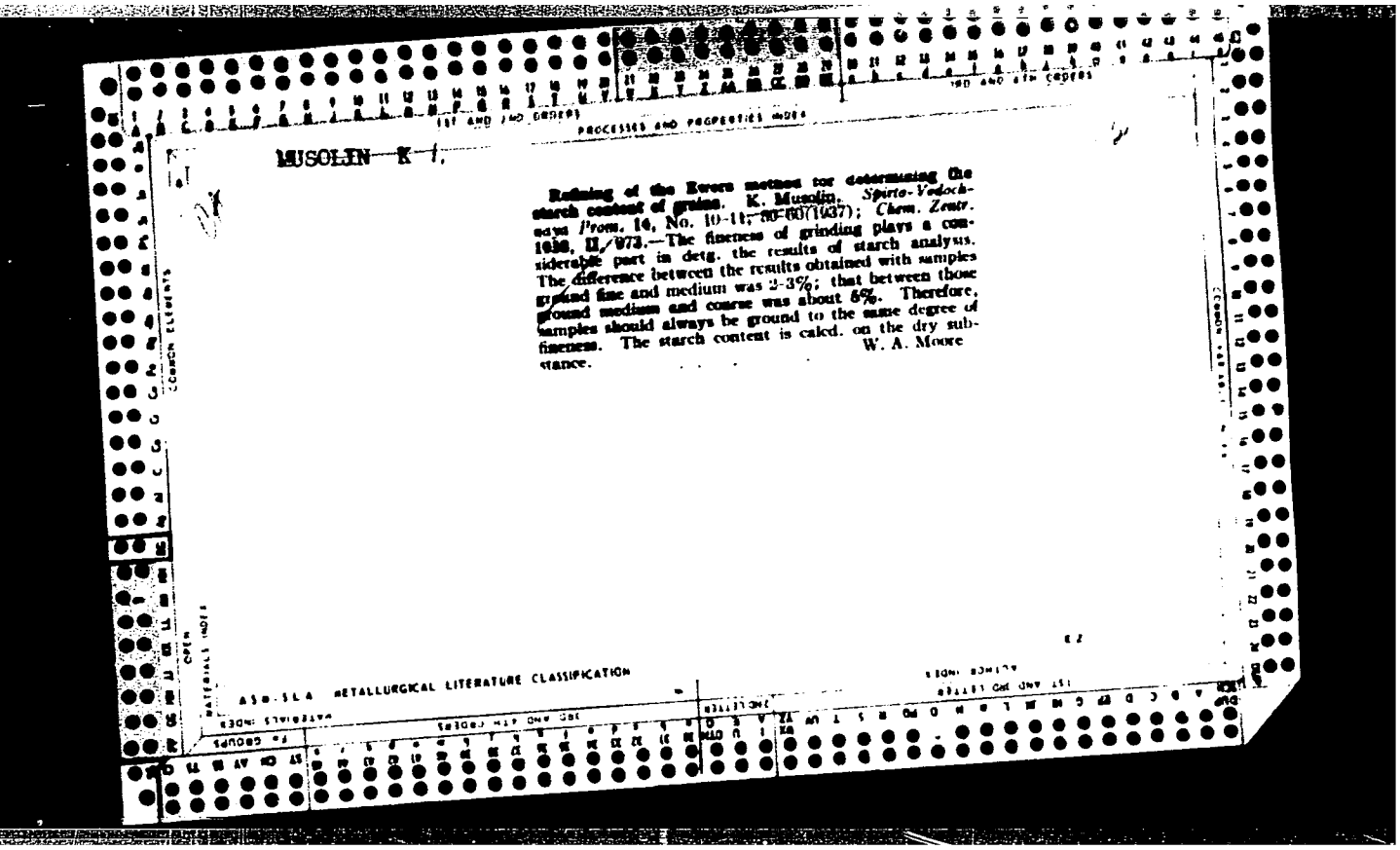
TOPIC TAGS: serum, penicillin, antibiotic, anthrax, vitamin, cortisone, disease therapeutics, drug treatment

ABSTRACT: Twelve patients with anthrax of varying degrees of severity were successfully treated by the authors. Depending on the severity, the patients were injected intramuscularly with 50-100 ml of antianthrax serum, 300,00 units of penicillin, and 0.4 g of biomycin four times a day. The antibiotics were continued for 10 days. The patients also received vitamins, applications of skin ointment, various drugs for symptomatic relief, and, in severe cases, cortisone. Improvement began within 24-28 hours. [JPRS]

SUB CODE: 06 / SUBM DATE: 26Jan65 / ORIG REF: 005

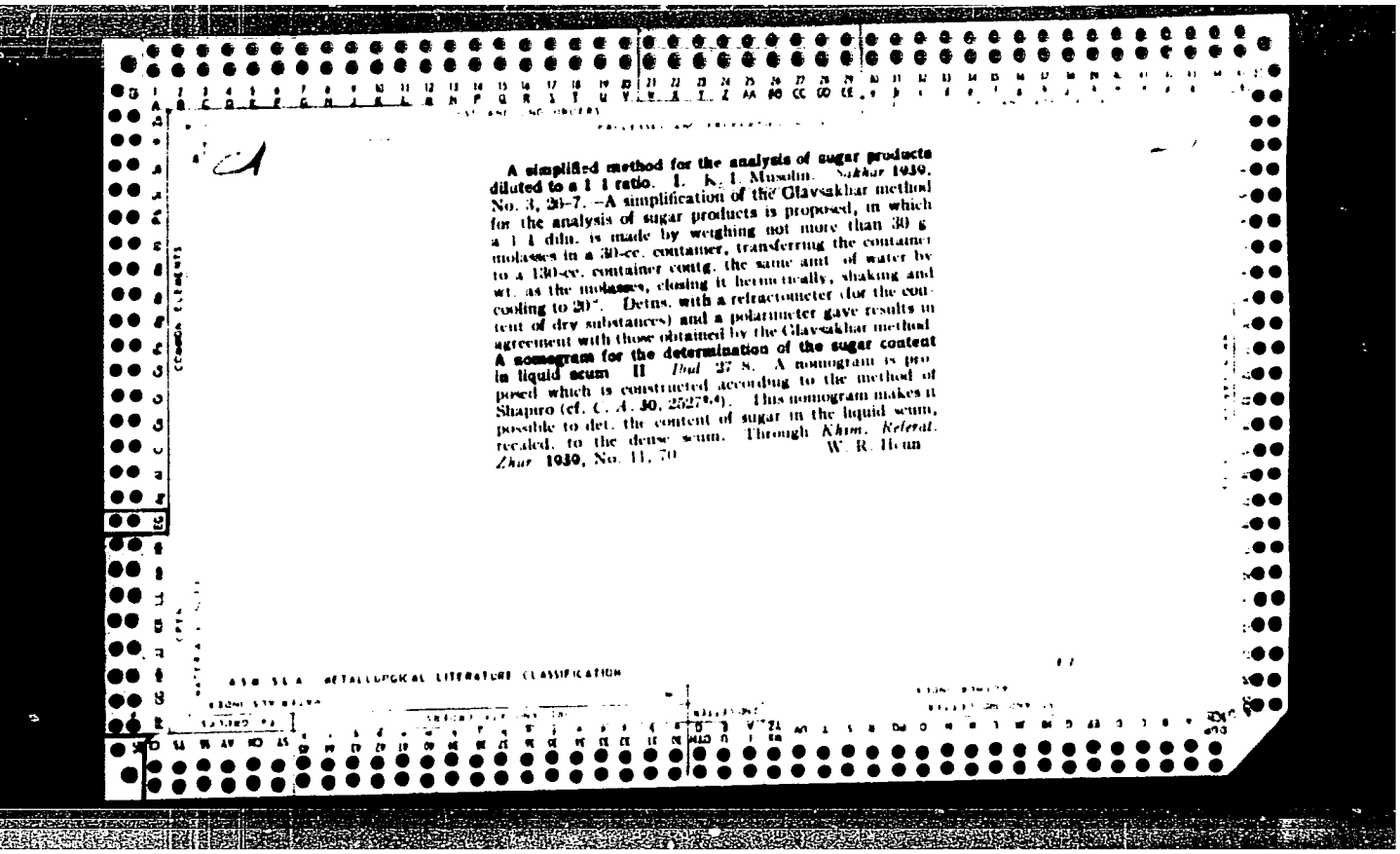
Card 1/1 UDC: 616.981.51-08





MUSOLIN K I.

Refining of the Evers method for determining the starch content of grains. K. Musolin. *Spirto-Vodochnaya Prom.* 14, No. 10-11, 80-80(1937); *Chem. Zentr.* 1938, II, 973.—The fineness of grinding plays a considerable part in detg. the results of starch analysis. The difference between the results obtained with samples ground fine and medium was 2-3%; that between those ground medium and coarse was about 6%. Therefore, samples should always be ground to the same degree of fineness. The starch content is calcd. on the dry substance. W. A. Moore



A simplified method for the analysis of sugar products diluted to a 1 1 ratio. I. K. I. Musalim. *Sakhar* **1930**, No. 3, 20–7.—A simplification of the Glavsakhar method for the analysis of sugar products is proposed, in which a 1 1 dilu. is made by weighing not more than 30 g molasses in a 30-cc. container, transferring the container to a 130-cc. container contg. the same amt. of water by wt. as the molasses, closing it hermetically, shaking and cooling to 20°. Detns. with a refractometer (for the content of dry substances) and a polarimeter gave results in agreement with those obtained by the Glavsakhar method. **A nomogram for the determination of the sugar content in liquid scum** II *Ibid* 27–8. A nomogram is proposed which is constructed according to the method of Shapiro (cf. *C. A.* **30**, 2527[6,4]). This nomogram makes it possible to det. the content of sugar in the liquid scum, recalcd. to the dense scum. Through *Khim. Referat. Zhur* **1930**, No. 11, 70 W. R. Horn

MUSOLIN, Konstantin Ivanovich; FUKS, V.K., red.; TARASOVA, N.M., tekhn.red.

[Nomographic calculations for the alcohol production processes; nomograms of the technology and technical and chemical control of the alcohol production] Nomograficheskie raschety spirtovogo proizvodstva; nomogrammy po tekhnologii i tekhnokhimicheskomu kontroliu spirtovogo proizvodstva. Moskva, Pishchepromizdat, 1959. 133 p. (MIRA 13:5)

(Alcohol)

MUSOLIN, K.I.

Sampler of liquids. Sakh.prom. 34 no.1:29 Ja '60.
(MIRA 13:5)

1. Khmelinetskiy sakharnyy zavod.
(Sampling)

MUSOLIN, Konstantin Ivanovich; KHMEL'NITSKAYA, A.Z., red.; ZARSHCHIKOVA, L.N., tekhn. red.

[Nomograms on the technology and technological control of sugar manufacture] Nomogrammy po tekhnologii i tekhnokhimicheskomu kontroliu sakharnogo proizvodstva. Moskva, Pishchepromizdat, 1963. 81 p. (MIRA 16:12)
(Sugar manufacture)

SUYAROV, D.I., kand.tekhn.nauk; MUSORIN, G.V., inzh.

Review of a book by N.F.Dubrov and N.I. Lapkin "Electrical steels."
Stal' 24 no.6:547-548 Je '64. (MIRA 17:9)

1. Institut metallurgii v.g. Sverdlovske i Sredne-Ural'skiy sovet narodnogo khozyaystva.

PHASE I BOOK EXPLOITATION SOV/2117

24(6)

Soveshchaniye po eksperimental'noy tekhnike i metodam vysokotempera-turnykh issledovaniy, 1956

Eksperimental'naya tekhnika i metody issledovaniy pri vysokikh temperaturakh; trudy soveshchaniya (Experimental Techniques and Methods of Investigation at High Temperatures; Transactions of the Conference on Experimental Techniques and Methods of Investigation at High Temperatures) Moscow, AN SSSR, 1959. 789 p. (Series: Akademiya nauk SSSR. Institut metallurgii. Konissiya po fiziko-khimicheskim osnovam proizvodstva stali) 2,200 copies printed.

Resp. Ed.: A.M. Samarin, Corresponding Member, USSR Academy of Sciences; Ed. of Publishing House: A.I. Bankvitser.

PURPOSE: This book is intended for metallurgists and metallurgical engineers.

COVERAGE: This collection of scientific papers is divided into six parts: 1) thermodynamic activity and kinetics of high-temperature processes 2) constitution diagram studies 3) physical properties of liquid metals and slags 4) new analytical methods and production of pure metals 5) pyrometry, and 6) general questions. For more specific coverage, see Table of Contents.

SOV/2117

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Eksperimental'naya tekhnika i metody issledovaniy pri vysokikh temperaturakh; trudy soveshchaniya (Experimental Techniques and Methods of Investigation at High Temperatures; Transactions of the Conference on Experimental Techniques and Methods of Investigation at High Temperatures) Moscow, AN SSSR, 1959. 789 p. (Series: Akademiya nauk SSSR. Institut metallurgii. Komissiya po fiziko-khimicheskim osnovam proizvodstva stali) 2,200 copies printed.

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VI. GENERAL QUESTIONS

Card 27/32

MUSORIN, G.V., inzh.

Studying the viscosity of synthetic slags in the reduction period of the electric smelting of steel. Trudy Ural.politekh. inst. no.75:142-156 '59. (MIRA 13:4)
(Steel--Electrometallurgy) (Slag--Testing)

BURDAKOV, D.D.; MUSORIN, G.V.

Northern Urals as a source of manganese ores for the Soviet Union. Trudy Inst. met. UFAN SSSR no.7:21-22 '61. (MIRA 16:6)
(Ural Mountains--Manganese ores)

APRAKSIN, I.A.; KOROVIN, S.S.; MUSORIN, V.A.; REZNIK, A.M.; ROZEN, A.M.

Extraction of nitric acid by tributyl phosphate in the presence of hydrobromic acid. Zhur. neorg. khim. 9 no.5: 1295-1296 My '64. (MIRA 17:9

1. Moskovskiy institut tonkoy khimicheskoy tekhnologii im. Lomonosova kafedra khimii i tekhnologii redkikh i rasseyannykh elementov.

SOV/133-58-8-13/30

AUTHORS: Teterin, P.K., Klyamkin, M.L., Candidates of Technical Sciences, and Musorin, I.N., Kolegayev, S.P., Sominskiy, Z.A., and Ebert, S.M., Engineers

TITLE: The Production of Two-layer Soldered Tubes (Proizvodstvo dvusloynykh payanykh trub)

PERIODICAL: Stal', 1958, Nr 8, pp 722 - 726 (USSR)

ABSTRACT: The process of production of two-layer soldered tubes was developed by TsNIICHM and tested on the Sinarskiy Pipe Plant. The tubes are made from a cold-rolled steel strip coated on both sides with a thin layer of copper. The edges of the strip are bevelled and the strip is formed into a two-layer tube semis with a close contact of the layers and overlapping of edges (Figure 1). The tube semis are passed through an electric furnace, heated to a temperature somewhat higher than the melting temperature of copper. The heating and cooling is done in a protective atmosphere. During the heating, soldering of the layers along the whole contact surface takes place. Thus, the manufacturing process consists of four main operations: copper coating of strip, bevel cutting of edges, forming of strip into tube semis and soldering. This kind of tube is being produced within a range of diameters from 6 to 16 mm with

Card1/4

The Production of Two-layer Soldered Tubes

the wall thicknesses from 0.6 to 0.9 mm. Low-carbon, mild steel (08) cold-rolled strip, 0.3 - 0.45 mm in thickness supplied in an annealed state in coils of a width corresponding to the required diameter of the tubes is used as a starting material. The strip is electrolytically coated with copper to a thickness of 4μ; 1 μ of copper is deposited from the cyanide electrolyte and 3 μ from an acid electrolyte. The coating process is continuous (Figure 2, table). The speed of strip through the electrolytic baths varies from 2.85 to 9.65 m/min, depending on its width. Cutting of edges is done in one pass without liquid cooling of knives. The rate of cutting up to 65 m/min (Figures 3 and 4). Forming of strip according to scheme shown in Figure 5 is done on a continuous 14-stand mill (Figure 6) produced by TsKBMM TsNIITMASh at a rate of 30-45 m/min. Formed semis are cut into a measured length (14 100 mm). Lots of 30 semis are passed for soldering in an electric resistance furnace (Figure 7) consisting of two chambers: heating and cooling. The temperature of the heating chamber is maintained at 1130 - 1140 ^{o} C. The rate of

The Production of Two-layer Soldered Tubes

passage through the furnace varies from 0.78 to 2.0 m/min, depending on the tube diameter. Protective atmosphere is obtained from charcoal gas producer (CO 31-37%, H_2 ≥ 11%, CH_4 0.2-0.7%, CO_2 1-4%, humidity 7-10 g/m^3). In order to retain a uniform distribution of copper on the surface of tubes during soldering, the latter are coated with a thin layer of a special coating material (not specified) before soldering. It is stated that the mechanical properties of tubes are similar to those of seamless tubes from mild steel (tensile strength 38-42 kg/mm^2, relative elongation 24-30% and pass the hydraulic test according to GOST 301-50). It is pointed out that the process of production of the above tubes is already introduced into practice. It presents significant, technical and economic advantages in comparison with the drawing process. Such tubes can replace

The Production of Two-layer Soldered Tubes SOV/133-58-8-13/30

successfully steel seamless tubes as well as copper and brass tubes, thus providing a large saving of non-ferrous metals.
There are 7 figures and 1 table.

ASSOCIATION: TsNIICHM and Sinarskiy trubnyy zavod (Sinarskiy Pipe Plant)

Card 4/4 1. Pipes--Production 2. Steel--Coatings 3 Furnaces--Applications

TETERIN, P.K.; MAMEGIN, Yu.V.; MUSORINA, I.Ye.; TRIFONOV, Ye.A.

Designing rolls for rolling-off and grooving mills used in diagonal rolling. Sbor.trud.TSNIICHM no.16:215-226 '59. (MIRA 12:5)

(Rolling (Metalwork))

TETERIN, P.K.; KLYAMKIN, N.L.; MUSORINA, I.Ye.

Organizing the production of two-ply welded pipes. Sbor. trud.TSNIICHM no.16:241-250 '59. (MIRA 12:5)
(Pipe, Steel)

PAVLOV, Ig.M.; TETERIN, P.K.; KLYAMKIN, N.L.; MUSORINA, I.Ye.

Designing rolls for shaping two-ply pipes. Sbor.trud. TSNIICHM no.16:251-268 '59. (MIRA 12:5)
(Rolls (Iron mills))

MUSORINA, I. Ye., Cand Tech Sci -- (diss) "Research into the process of forming double-layer pipes and the development of methods of calculating the calibration of beams." Moscow, /Metallurgy Publishing House/, 1960. 14 pp; (Main Scientific Research of Design under the Gosplan USSR, Central Scientific Research Inst of Ferrous Metallurgy); 110 copies; free; (KL, 22-60, 138)

FUKS, I.M.; VALEYEVA, F.N.; POPKOVA, F.V.; VOLKOVA, L.P.; BELOGOLOVSKAYA, T.A.; ROMASHKEVICH, I.K.; Prinimali uchastiye: MOROZOVA, L.M.; DASHEVSKAYA, S.I.; VAKHMINA, L.S.; KARAVAYEVA, G.V.; IVANOVSKIY, A.K.; ZHUKHINA, G.Ye.; SOLOV'YEVA, G.M.; ANDRIYANOVA, M.V.; AKHMETOVA, V.M.; NEMIROVSKAYA, M.Ye.; MUSORINA, L.S.; KALASHNIKOVA, Ye.I.; PESHKO, A.P.; IVANOVA, N.V.; ALKESEYEVA, N.I.; SADOVNIKOVA, G.N.

Study on the possibility of reducing the diphtheria vaccine dose in revaccination of 9 to 12 year-old schoolchildren. Zhur. mikrobiol., epid. i immun. 41 no.11:103-107 '65. (MIRA 18:5)

1. Ufimskiy institut vaktsin i syvorotok imeni Mechnikova.

5(4) SOV/54-59-1-12/25

AUTHORS: Zakhar'yevskiy, M. S., Musorok, Ye. G., Yakubov, Kh. M., Lentovskaya, V. A.

TITLE: Oxidation Potential in Solutions of Indigo Dyes (Okislitel'nyy potentsial v rastvorakh kubovykh krasiteley)

PERIODICAL: Vestnik Leningradskogo universiteta. Seriya fiziki i khimii, 1959, Nr 1, pp 94-97 (USSR)

ABSTRACT: The oxidation potential in a redox system may be determined by the following equation: $\varphi = \varphi_0 - \frac{RT}{nF} \ln \frac{a_{Ox}}{a_{Red}} - \alpha \ln a_{H^+}$ (2)

This equation reflects the dependence of the oxidation potential φ (φ_0 = regular oxidation potential) on the activity of the oxidation form (a_{Ox}), and the reduction form (a_{Red}) F = Faraday number and α a coefficient, which takes multiples of the value 1/2.(RT/F) in dependence on the proteolytic equilibrium in the system. On assuming the activity coefficient to be equal to one and with a constant pH, in addition to introducing into equation (2) the numerically computed coefficients, the expressions for

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the oxidation potentials assume the following form:

$$\varphi = \varphi_0 + 0.0001\ T \lg \frac{C_{Ox}}{C_{Red}} \quad (3); \quad \varphi = \varphi_0 + 0.0001\ T \lg \frac{A}{C_{Red}} \quad (4)$$

Equation (3) holds for the case of a variable activity of the oxidation form and equation (4) holds for a constant activity The present paper deals with the investigation of the applicability of equations (3) and (4) upon indigo dye solutions In this connection, the authors investigated the dependence of the oxidation potential on the ratio of the oxidation- and reduction form concentrations in the indigo dye solutions: indigo red "kkh", indigo gold-yellow "zhkh", indigo light green "zh", and indigo blue "o" In the indigo dye solutions, in which the oxidation form is colloidal, a linear dependence of the oxidation potential on $\lg \frac{C_{Ox}}{C_{Red}}$ was found; the inclination angle of the straight lines obtained, however, is somewhat smaller than the one obtained by theoretical calculation. There are 2 figures and 12 references, 3 of which are Soviet.

ZAKHAR'YEVSKIY, M.S.; MUSOROK, Ye.G.; YAKUBOV, Kh.M.

Analysis of the vat dyeing process in laboratories. (MIRA 13:11)
Tekst.prom 20 no.10:43-45 O'60.
(Dyes and dyeing)

MUSOSTOV, M.B., inzh.

Constructing precast reinforced concrete tanks. Rats.i izobr.predl.v stroi. no.12:4-9 '59. (MIRA 13:5)

1. Stroitel'no-montazhnoye upravleniye No.10 tresta, Vostokspetsneftestrov Ministerstva stroitel'stva RSFSR, g.Kuybyshev oblast', Samarskaya ul., d.170.
(Tanks) (Precast concrete construction)

L 1670-66 EWT(d)/T LJP(c)

ACCESSION NR: AP5023556 UR/0020/65/164/001/0043/0046

AUTHOR: Mnatsakanyan, V. Kh. 44,55 44,55 29 B

TITLE: Representation of an arbitrary analytic function by special series

SOURCE: AN SSSR. Doklady, v. 164, no. 1, 1965, 43-46

TOPIC TAGS: complex variable

ABSTRACT: In this note the author obtains estimates for representation of an arbitrary analytic function in a ρ-convex region by series more general than Dirichlet series. In this respect he generalizes the work of A. F. Leont'yev concerning representation of arbitrary analytic functions in a convex region by Dirichlet series with particular type $\{\lambda_n\}$. "In conclusion I express my gratitude to Professor A. F. Leont'yev 44,55 for the formulation of the problem and for many valuable comments." Orig. art. has: 17 formulas.

ASSOCIATION: Matematicheskiy institut im. V. A. Steklova, Akademii nauk SSSR (Mathematical Institute, Academy of Sciences SSSR) 44,55

SUBMITTED: 29Apr65 ENCL: 00 SUB CODE: MA

NO REF SOV: 003 OTHER: 000

Card 1/1 BT

L 05200-67 EWI(d) IJP(c)
ACC NR: AP7000751

SOURCE CODE: UR/0252/66/042/002/0073/0076

MUSOYAN V. Kh. Mathematics Institute im. V. A. Steklov, Academy of Sciences SSSR (Matematicheskiy institut AN SSSR)

" Analytic Continuation of Functions Approximable by Dirichlet Polynomials" (presented by Academician M. M. Dzhrbashyan, Armenian Academy of Sciences, 21 Aug., 1965)

Yerevan, Doklady Akademii Nauk Armyanskoy SSR, Vol. 42, No. 2, 1966, pp 73-76

ABSTRACT: Let λ_1, $\lambda_2, \ldots,$ $\lambda_\nu, \ldots$ be a sequence of complex numbers and m_1, m_2, ..., m_ν, ... a sequence of positive integers. The article concerns the system of functions

$$e^{\lambda_\nu z}, ze^{\lambda_\nu z}, \cdots, z^{m_\nu - 1} e^{\lambda_\nu z}; \ \nu = 1, 2, \cdots.$$

The author assumes that it is incomplete in metric C on the segment of the imaginary axis [-qi, qi] (0 q) and forms the sequence

$$F_n(z) = \sum_{\nu=1}^{q_n} P_{n\nu}(z) e^{\lambda_\nu z} \ (n = 1, 2, \cdots) \qquad (1)$$

of finite linear combinations of functions of the given system.

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L 05200-67

ACC NR: AP7000751

It has been shown by L. SCHWARTZ (Etudes des Sommes d'Exponentielles 1959, Actualites Scientifiques et Indust.), that if all λ_ν are real numbers, $m_\nu = 1$, sequence (1) converges uniformly on $[-qi, qi]$ and its limit function $F(z)$ is regular on segment $[-qi, qi]$, then $F(z)$ is regular on the entire imaginary axis; if λ_ν are complex numbers, then without supplementary conditions for sequence (1) it is impossible to assert that $F(z)$ will be regular on the entire axis. A. F. LEONT'YEV has proven that if sequence (1) converges uniformly on any finite interval of the imaginary axis and limit function $F(z)$ is regular on segment $[-qi, qi]$, then the function $F(z)$ is analytic in a certain vertical zone.

The author notes that if LEONT'YEV's reasoning is followed, the following result might also be obtained: Let sequence (1) converge uniformly within the finite interval of imaginary axis (ai, bi), $a < -q$, $b > q$. If limit function $F(z)$ is regular on $[-qi, qi]$, it is also regular on interval $(ai + qui, bi - qi)$. The present article shows that under these conditions function $F(z)$ will actually be regular not only in the interval $(ai + qi, bi - qi)$ but also in the interval (ai, bi). The author notes that the proof for this makes use of a generalization of a result of L. SCHWARTZ but is not given because it is too cumbersome. This paper was presented by Academician AN ArmSSR M. M. Dzhrbashyan on 21 August 1965. The author thanks A. F. Leont'yev for formulating the problem and for his assistance. Orig. art. has: 4 formulas. [JPRS: 37,330]

TOPIC TAGS: Dirichlet problem, polynomial

SUB CODE: 12 / SUBM DATE: none / ORIG REF: 002 / OTH REF: 002

Card 2/2 vmb

MUS'PAN, P.

The TU-600 radio reception and rediffusion center. Radio no.6:19-22 Je '54. (MLRA 7:7)
(Radio--Transmitters and transmission)

05915

SOV/107-59-7-18/42

6(4)

AUTHOR: Mus'pan, F.

TITLE: The "KRU-40" Rebroadcasting Station

PERIODICAL: Radio, 1959, Nr 7, pp 17 - 19 (USSR)

ABSTRACT: A Gold Medal was given for the "KRU-40" rebroadcasting station at the Brussels World Fair. The transistorized apparatus is designed for operation in rural areas. About 200-400 loudspeakers of type "Sever" or 800 piezoelectric loudspeakers may be connected to one unit. The receiver has one long wave, one medium wave and three short wave bands. The sensitivity in all ranges is not less than 50 microvolts at a signal-to-noise ratio of 20db. The i-f frequency is 465 kc. The pass band of the amplifier is from 100 to 5000 cps, its nonlinear distortion is below 8%. The circuit diagram of the amplifier is shown in Figure 1. Transistors P6D, P6V, P8A (three) and P4 (two) were used. The

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The "KRU-40" Rebroadcasting Station

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station consists of different units which are mounted on one metal bay of 510x300x280 mm, having a weight of 25 kg. The output and the antenna panel are built as separate units. Power is supplied by 6ST-68 batteries, 24-26 volts. Voltage drops of 20% do not affect the operation. The station is equipped with a generator driven by a VE-2 windmill. There are 2 circuit diagrams, 1 diagram and 2 tables.

Card 2/2

MUSS names with double s, see also MUSZ----

MUSSA, Brakham

Trade-Unions - Algeria

Growth of the trade-union movement in Algeria. Vsem.prof.divzh. no. 1, 1952.

9. Monthly List of Russian Accessions, Library of Congress, October 1952, Uncl.

MUSSA, C.

6154* (German.) Certain Fractionations of High-Pressure Polyethylenes. Über einige Fraktionierungen von Hochdruck-polyäthylenen. A. Nasini and C. Mussa. *Makromolekulare Chemie*, v. 22, nos. 1-2, 1957, p. 39-50.

To estimate the influence of the crystallinity on the fractionation, four high-pressure polyethylenes of different average degree of polymerization were fractionated by three different methods.

SOV/109-3-8-3/18

AUTHORS: Gel'berg, A., Iosifesku, B., Komsha, G. and Mussa, G.

TITLE: Investigation of the Temperature Dependence of the Work Function of Metals (Issledovaniye temperaturnoy zavisimosti raboty vykhoda metallov)

PERIODICAL: Radiotekhnika i Elektronika, 1958, Vol 3, Nr 8, pp 1000 - 1004 (USSR)

ABSTRACT: A description of the method of measurement of the work function is given and some experimental results are reported. The method was first proposed by Lukirskiy (Refs 2, 3 and 4). The method permits the measurement of the contact potential difference of two substances, i.e. the difference between their work functions. Since, in this work, the aim was not the determination of the absolute value of the work function but its variation, the method was particularly suitable for the measurements. The experiments were carried out by means of a special tube (Figure 1) which consisted of an electron gun of the Myers type (Ref 6) and of a target in the form of a hollow cylinder. The electron gun was furnished with a fine focusing arrangement which was situated at a distance of about 2 cm from the target. The target

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Investigation of the Temperature Dependence of the Work Function of Metals

(Figure 2) was made of metal plate having a thickness of 0.1 mm and was fitted with a heater; this arrangement ensured the equipotentiality of the target surface. The heater of the target was made of a double-helix, tungsten wire, so as to reduce the magnetic field due to the heater current. The heater was used not only for raising the temperature of the target but also for the de-gassing of the system. The internal walls of the experimental tube were coated with a conducting layer which was given a potential of the last anode (Figure 1). The metal parts of the tube were thoroughly de-gassed and, after sealing off, the pressure inside the tube was reduced to about 10^{-9} mmHg by means of two ionisation-type pumps. The measurements were carried out in the circuit shown in Figure 3. Since the measurements had to be made at a constant temperature within a temperature range of 20 - 1 000 °C, the temperature of the cathode was controlled by measuring its resistance by means of the Thomson bridge. The current at the target was measured

by means of a galvanometer having a sensitivity of 4×10^{-11} A/division. The measurement of the contact potential difference was as follows: the current-voltage characteristics were plotted on a semi-logarithmic scale; in the region of small currents, the graphs could be approximated by straight lines. Also, for each temperature a current curve was determined and its intersection with the straight line was found. From this, it was possible to determine the contact potential difference. The error of measurement of the contact potential difference was about 5×10^{-4} V. The experimental results are shown in Figure 4, which represents the work function for a molybdenum target. The 'dashed' curve in Figure 4 represents the direct results of the measurements, while the full curve represents the values of the work function after correction; the corrections were evaluated by taking into account the variation of the electrochemical potential of the system. The results represented by Figure 4 should be regarded as preliminary and it is intended to give more accurate values in the near

Investigation of the Temperature Dependence of the Work Function of Metals

future. The authors express their deep gratitude to L.N. Dobretsov for his interest in this work.
There are 4 figures and 9 references, 6 of which are English, 2 German and 1 Soviet.

ASSOCIATION: Institut atomnoy fiziki Akademii nauk RNR, Bukharest (Institute of Atomic Physics of the Ac.Sc. of the Rumanian People's Republic, Bucharest)

SUBMITTED: January 29, 1958

Card 4/4 1. Work functions--Measurement 2. Work functions--Temperature factors 3. Metals--Properties 4. Metals--Testing equipment

MUSSAYEV, S.E.

Prospects for finding oil and gas in Mesozoic sediments of Daghestan. Trudy Geol.inst.Dag.fil. AN SSSR. 2:25-38 '60. (MIRA 15:12)

(Daghestan—Petroleum geology) (Daghestan—Gas, Natural—Geology)

MUSSAYEV, S.E.

Oil and gas potentials of Upper Cretaceous and foraminiferous sediments in Daghestan. Trudy Geol.inst.Dag.fil. AN SSSR. 2:39-56 '60. (MIRA 15:12)
(Daghestan—Petroleum geology)
(Daghestan—Gas, Natural—Geology)

MUSSAYEV, S.E.

Istisu, a new promising oil-bearing area in Daghestan. Trudy Geol. inst.Dag.fil. AN SSSR 2:81-87 '60. (MIRA 15:12)
(Makhachkala region--Petroleum geology)

MAGATAYEV, K.S.; MUSSAYEV, S.E.; MIRZOYEV, D.A.

Development of geological prospecting on the plains of northern Daghestan. Trudy Geol.inst.Dag.fil. AN SSSR 2:88-97 '60.
(MIRA 15:12)
(Daghestan—Prospecting)

MUSSELIUS-BOGOYAVLENSKAYA, V. A. Cand Biol Sci -- (diss) "Infections in bream and their effect upon the organism of the fish." Mos, 1957. 16 pp (Mos Tech Inst of the Fish Industry and Economy im A. I. Mikoyan), 150 copies (KL, 4-58, 82)

MUSSELIUS, V.A.

Bothriocephaliasis in pond fishes. Trudy sov. Ikht. kom. no.14:220-224 '62. (MIRA 15:12)

1. Vserossiyskiy nauchno-issledovatel'skiy institut prudovogo rybnogo khozyaystva (VNIPRKh).
(Parasites—Carp)
(Tapeworms)

MUSSLER, R.

MUSSLER, R. Some problems of greater productivity in working materials. p. 113

Vol. 8, no. 3, Mar. 1956
TECHNICKA PRACA
TECHNOLOGY
Bratislava, Czechoslovakia

So: East European Accession Vol. 6, no. 2, 1957

LEVIN, Ya.V.; MUSSO, L.G.

Instruments for radiological clinics. Med.rad. no.1:73-82 '62.
(MIRA 15:1)

1. Iz Nauchno-issledovatel'skogo instituta eksperimetal'noy khirurgicheskoy apparatury i instrumentov.
(RADIOLOGY, MEDICAL--EQUIPMENT AND SUPPLIES)

FARIZOV, I.O.; MEDOVYY, A.I.; MAKSIMOV, M.A.; MASLOV, A.A.; MUSSO, S.; BOGDANCHIKOV, M.M.; VARENTSOV, K.M.; AVARIN, V.Ya., otv. red.; POLYAK, A.A., otv. red.; TRINICH, F.A., red. izd-va; VOLKOVA, V.V., tekhn. red.

[Agrarian-peasant question in the independent underdeveloped countries of Asia; India, Burma, Indonesia] Agrarno-krest'ianskii vopros v suverennykh slaborazvitykh stranakh Azii; Indiia, Birma, Indoneziia. Moskva, 1961. 353 p. (MIRA 14:6)

1. Akademiya nauk SSSR. Institut mirovoy ekonomiki i mezhd narodnykh otnoshenii.
(Asia, Southeastern—Agriculture—Economic aspects)

MANUKYAN, A.A.; RYDVANOV, N.F.; BELOUS, T.Ya.; SVIRIDOVA, Z.P.; CHEBOTAREVA, Ye.A.; SHUMILIN, V.I.; PUDINA, K.V.; LUTSKAYA, Ye.Ye.; BRAGINA, N.M.; SANDAKOV, V.A.; MUSSO, S.; ZABLOTSKAYA, A.I.; VDOVICHENKO, D.I.; MIRKINA, I.Z.; MORENO, I.; SIDOROV, V.F.; MOKLYARSKIY, B.I.; GRECHIKHIN, A.A.; KOSOVA, V.A.; KULIKOV, N.I.; ZHDANOVA, L.P.; ROZENTAL', Ye.I.; PETRANOVICH, I.M.

[Economic conditions of capitalist countries; survey of economic trends in 1961 and the beginning of 1962] Ekonomicheskoe polozhenie kapitalisticheskikh stran; kon'iunkturnyi obzor za 1961 g. i nachalo 1962. g. Moskva, Izd-vo "Pravda," 1962. 157 p. (MIRA 16:9)

1. Sotrudniki kon"yunkturnogo sektora Instituta mirovoy ekonomiki i mezhdunarodnykh otnosheniy AN SSSR.
(Economic history)

SAUCIC, L.I.; MUSTA, M.

Derivatives of the 2-4-dichlorophenoxyacetic acid. Bul St al Tehn Tim 9 no.1:41-44 Ja-Je '64.

1. Submitted June 8, 1964.

ZAMFIRESCU, Tudor (Bucuresti); LEVIN, Aleksandru (Tallin, U.S.S.R.); ADU, Dumitru (Nasaud); SANDULACHE, C. (Negresti); PRAVAT, V.V. (Iasi); SA[illegible], C.; POPA, Eugen (Iasi); ZAMFIRESCU, Tudor; VOICULESCU, Dan (Bucuresti); IONESCU-TIU, C.; NICULESCU, Vlad (Craiova); MANUTI, Ion (Timisoara); MUSTA, Stefan (Oradea); BADAN, C. (Bacau); PETRESCU, P. Anastasie (Craiova); LUSZTIG, Gh. (Bucuresti); BAINZANESCU, V. (Bucuresti)

Solved problems. Gaz mat 3 16 no.4:61-62 F '65.

R/009/60/000/003/002/003
A124/A126

AUTHOR: Mustăcescu, Erika, Chemist

TITLE: A simple method for the determination of boron in steels

PERIODICAL: Metalurgia şi Construcţia de Maşini, no. 3, 1960, 244-246

TEXT: Subject article is the publication of a paper presented at the Session for Scientific Communications of the "ICEM" from November 3-5, 1959. The work was accomplished at the Laboratorul Central de Analize al ICEM (Central Laboratory of Analyses of the ICEM), together with the technician Irina Pincu. The determination of boron is more difficult than the determination of the other elements of steel. These difficulties and some generally employed methods of determination are briefly explained. A quick and simple method was worked out at the ICEM Laboratory. It is derived from a Soviet method of determining boron in ores with a 0.01 - 0.5% boron content, and is based on the property of the "mannitoboric acid" to separate iodine from a iodate-iodine solution. The separated iodine is then colorimetrically determined. First the steel chip is de-aggregated in hydrochloric acid and then boron is separated from the iron and the alloying elements by precipitating them in sodium hydroxide. The operation

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A simple method for the determination ... R/009/60/000/003/002/003
A124/A126

procedure and the plotting of a master curve are described. The method was checked by artificial samples being added to a steel not containing boron, and passed through all phases of the analysis. Thus, an identical curve was obtained. Up to now, boron was determined in 32 steel charges. The method described is simple, economical and fast. Errors owing to the composition of steel, water, reactives, or equipment are compensated by the fact that the samples used for comparing represent half of the analysed ones. Errors, resulting from the presence of iron and of the majority of the alloying elements are eliminated by previously separating them with sodium hydroxide. The duration of a double examination is 5 hours. There are 3 tables, 1 figure and 11 references: 5 Soviet-bloc and 6 non-Soviet-bloc. The reference to the most recent English-language publication reads as follows: B.I.S.R. Methods of Analysis Committee: "The Determination of Boron in Carbon and Low-Alloy-Steels" - Journal of the Iron and Steel Institute; July 1958, v. 189, part. 3.

Card 2/2

L 46068-66 T/EWP(t)/ETI IJP(c) JD

ACC NR: AP6034181 SOURCE CODE: RU/0017/66/000/003/0154/0156

AUTHOR: Morait, M. (Chemist); Mustacescu, Erika (Chemist) 23 B

ORG.:
Metallurgical Research Institute (Institutul de Cercetari Metalurgice).

TITLE: Tentative establishment of some correlations between the electrolytic solution method and the metallographic method of determining non-metallic inclusions in steels 18

SOURCE: Metallurgia, no. 3, 1966, 154-156

TOPIC TAGS: nonmetallic inclusion, metallography

ABSTRACT: [Authors' English summary modified]: The authors conclude from their tests that it is possible to establish a definite correlation between the results obtained by the two entirely different methods of determining nonmetallic inclusions in steel; this also confirms the objective nature of both methods. Orig. art. has: 1 figure and 5 tables. [JPRS 36,867]

SUB CODE: 11 / SUBM DATE: none / ORIG REF: 002 / OTH REF: none
SOV REF: 002

Card 1/1 gpl UDC: 669.14:539.2-9.1:620.18 0120 2736

MUSTACHKOVA, S.

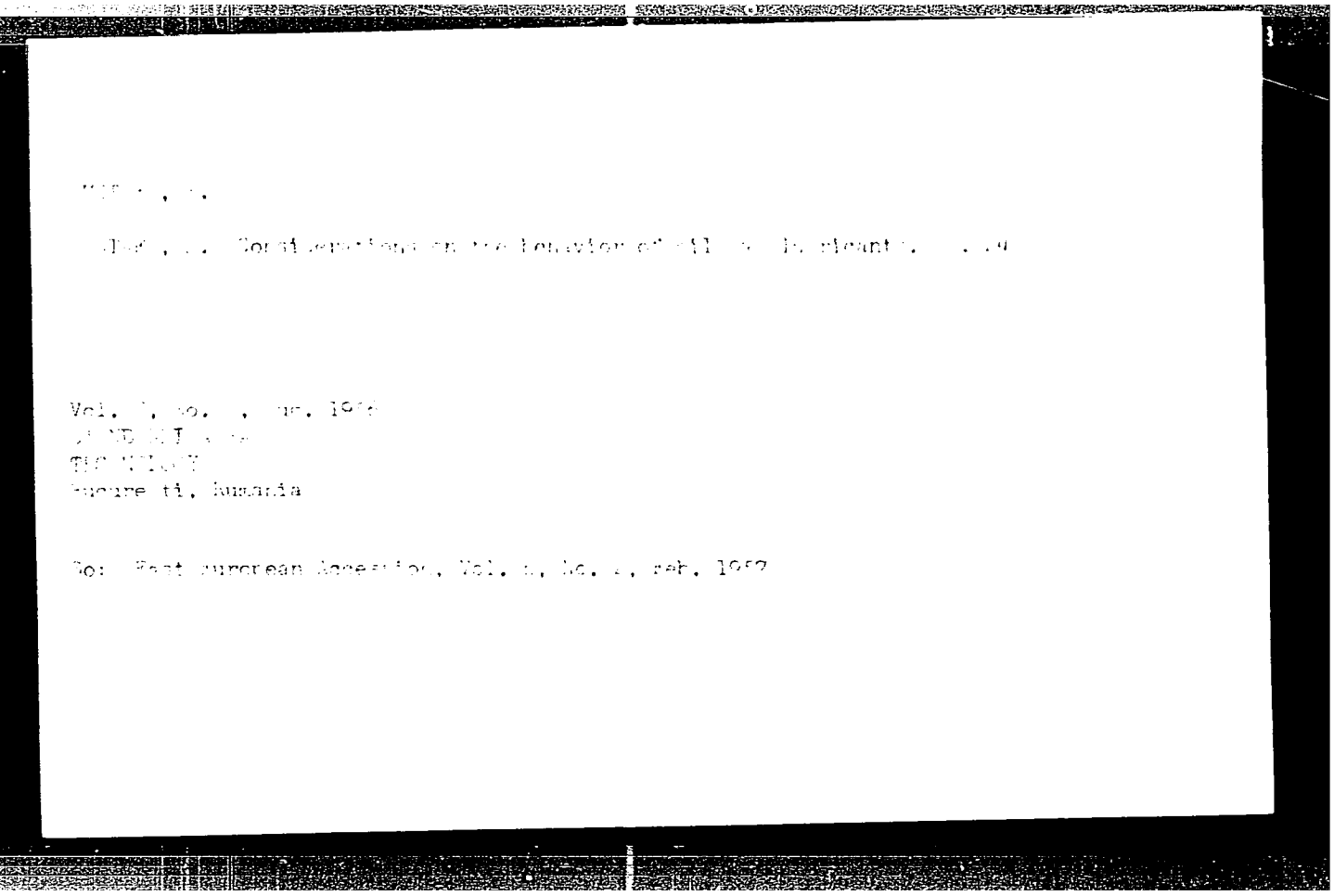
"Successes of the Hospital in Vulchedrum, Lom, Okoliya,." p. 3,
(ZDRAVEN FRONT, No. 40, Oct. 1954, Sofiya, Bulgaria)

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4
No. 5, May 1955, Uncl.

MUSTAFA, M.

Calculation of transversal vibrations of shaft. p. 29. METALURGIA SI CONSTRUCTIA DE MASINI. (Ministerul Industriei Metalurgice si Constructiilor de Masini si Asociatia Stiintifica a Inginerilor si Technicilor) Bucuresti.
Vol. 8, no. 4, Apr. 1956.

SOURCE: East European Acessions List, (EEAL), Library of Congress, Vol. 5, No. 11, November, 1956.



Vol. , No. , pp. 19

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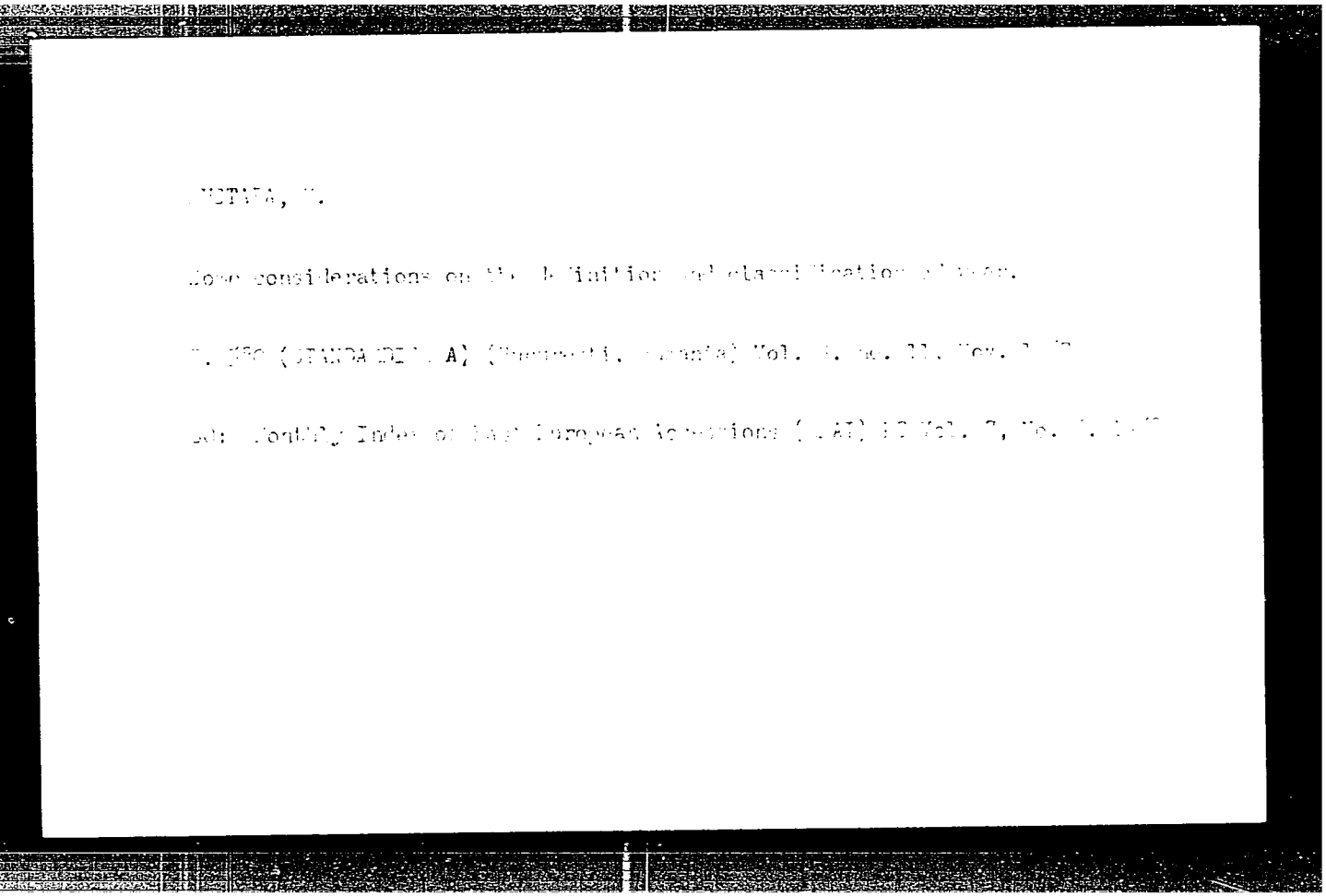
To: Post European Aeron , Vol. , No. , Feb. 1952



25(2) RUM/9-59-9-8/46

AUTHOR: Mustafa R. Mustafa

TITLE: The Influence of the Bushing Material on the Operation of Friction Bearings

PERIODICAL: Metalurgia şi construcţia de maşini, 1959, Nr 9, pp 773-785 (RUM)

ABSTRACT: The author presents the results of tests made at the Institute of Applied Mechanics of the Rumanian Academy to determine the influence of a change of the volumetric properties of a lubricant-bushing couple on the operating conditions of the bearing. At the same time, the study referred to the verification of the influence of the pressure of the lubricant. The testing apparatus (Fig 1) is composed of the bearing testing machine and the device for the measurement of the excentricity of the journal within the bushing. The measuring device was conceived and designed by the author, and built by I.O.R. The testing machine is composed of a bushing freely mounted

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The Influence if the Bushing Material on the Operation of Friction Bearings

on a shaft driven by an electric motor. The shaft is supported by two roller bearings in the casing of the machine. The load is transmitted to the bushing through a roll. The load is made through a system of levers, a spring, and a vice. The device for the measurement of the excentricity (Fig 2) is based on an optical system. A light source is fastened at the upper part of the bushing. Its light falls on a glass plate with an engraved reticule, rigidly assembled with the bushing. In the face of the glass plate there is a microscopic device. The ocular scala is so designed that it allows the determination of the position of the glass plate reticule at any point. The tests were made on the following Rumanian made materials: a lead bronze alloy, a $ZnAl_4Cu$ alloy, white metal (Babbitt), lognofol, press mass. The journal was made from the same steel for all tests (standard steel OLC 16 cemented, hardened and ground) the properties of which (according to STAS

The Influence of the Bushing Material on the Operation of Friction Bearings

880-49) are given in Table 2. The lubricant used was oil 410 STAS 751-49, the characteristic properties of which are presented in Table 3. The variation of the viscosity, based on data made available by IMA, is presented in Fig 3. The bushings have been processed by simple turning and grinding of the working surfaces, excepting the press-mass bearing, which was obtained by pressing, without any machining of the working surface. The mechanical characteristics of the journal-bushing system are presented in Table 4. The testing conditions for all materials included: lubrication under pressure, in close circuit. The oil entry to the bushing was made by a channel-opening with 180° advance to the point of application of the load. The oil outlet was at the end of the bushing. The specific pressures varied between 0 and 40 kg per cm^2. The speed in the tests was 680 and 1,460 rpm, corresponding to a peripherial speed of 1.29 and 2.7 meter per second. The wear-in criter-

The Influence of the Bushing Material on the Operation of Friction Bearings

ium was that of thermal stability. The measurements extended to the relative position of the journal in the bushing, the flow of lubricant (q_u), the average temperature of the lubricant at the outlet from the bearing. The results of the measurements are given in the Figs 4-18. The measurements were made for the three values $\chi = 0.139$, 0.278 and 0.55. The exact value of the loading coefficient $\varphi = \frac{p_m \psi^2}{\eta \omega}$ was determined for each position. By measuring on the figure the value of the corresponding relative excentricity, the curves $\varphi = f(\chi)$ were drawn. χ is the relative excentricity $= \frac{e}{\Delta}$. The analytical expression used for determining the friction coefficient is included. In Fig 22, the graphs representing the wear of the five bearings from different materials is given plotted against the temperature. The influence of the feeding pressure, of the lubricant channels and of the bushing materials is discussed. Finally it is concluded that

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The Influence of the Bushing Material on the Operation of Friction Bearings

the geometry of the opening and the feeding pressure have an appreciable influence on the flow of lubricant; the influence of the material is felt in the current operation conditions of the bearings ($\chi > 0.75$). It is pointed out that for more clarity, a physical study of lubrication is necessary, to complete the hydrodynamic theory and to obtain a criterium of estimation of the material factor. There are 29 graphs, 2 photographs, 7 tables, and 4 references, 2 of which are German, 1 Rumanian, and 1 Soviet.

ASSOCIATION: Institutul de mecanica aplicata al Academiei R.P.R. (Institute of Applied Mechanics of the Rumanian Academy)

Card 5/5

MUSTAFA, M.

Globoid worm gears; geometry and drawing. p. 118.

METALURGIA SI CONSTRUCTIA DE MASINI. (Ministerul Industriei Metalurgice si Constructiilor de Masini si Asociatia Stiintifica a Inginerilor si Tehnicienilor din Romania) Bucuresti, Rumania. Vol. 10, no. 4, Apr. 1959.

Vol 8

Monthly list of East European Accessions (EEAI) LC/No. 6, Aug. 1959

Uncl.

MUSTAFA, M.

Selection of a system of fits on pressed joints in conformance with the State Standard system. p. 58.

REVISTA CONSTRUCTIILOR SI A MATERIALELOR DE CONSTRUCTII. (Asociatia Stiintifica a Ingineriilor si Technicienilor din Rominia si Ministerul Constructilor si al Materialelor de Constructii) Bucuresti, Rumania. Vol. 11, no. 2, Feb. 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 8, no. 6, June 1959

Uncl.

MUSTAFA, M.

On the standardization of the layer thickness of antifriction alloys. p. 326.

STANDARDIZAREA. (Oficiul di Stat pentru Standarde si Comitrful Electrotehnic Romin) Bucuresti, Rumania. Vol. 11, no. 7, July 1959.

Monthly list of East European Accessions (EEAI) LC Vol. 9, no.2
Feb. 1960

Uncl.

MUSTAFA, A.

Influence of the material upon the functioning of the journal bearing s. 1.773

METALURGIA [illegible] A DE [illegible] T. (Institutul Industriei Metalurgice si Constructiilor de Masini si Asociatia Stiintifica a Inginerilor si Technicienilor din Romania) Bucuresti, Romania
Vol. [illegible], no.9, 19[illegible]

Monthly list of East European Accessions (EEAI) LC, vol. , no.2 Feb. [illegible]

Uncl.

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